March 23, 2010 1:06:18 PM

Item ID:

D212-664-101



Setup Start

Stop



Revision ID:

Item Name: Crosstube Fwd

Start Date: 23/03/2010 **Required Date: 30/03/2010**

Start Qty: 1.00 Req'd Qty: 1.00



Cust Item ID: Customer:

Reference:

Approvals:

Date: 10-3-23

Tooling:

Accept

Date:

Run

Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Qty

Sequence ID/ **Work Center ID**

Operation Description

Set Up/ **Run Hours**

Draw Number

Draw Plan Rev. Code

Accept Qty

Reject Reject Number

Insp. Stamp

Draw Nbr

Revision Nbr

D212-664-141

Rev D

100

Document Control

DOCUMENT CONTROL

Memo

0.00

Photocopy bluefile and create labels as per PPP D212-664-101 CHG003

110

Pick Kit Packaging

0.00

0.00 1

Packaging Packaging

Memo

0.00

MB 10-01/-(2

120

CNC Bend 2

BENDING MACHINE - CROSSTUBES

Memo

0.00

0.00

CNC Alpha 160 Bender

Bend tube as per Dwg D212-664-141 using CNC bender program 212-fw and Folio FT015

& MB 10-04-07

Dart	Aero	spa	ace	Ltd
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W/O:		WORK ORDER CHANGES										
DATE	STEP	भें अ -	EDURE CHAI	NGE		Ву	Date	Qty	Approval Chief Eng / Pròd Mgr	Approval QC Inspector		
						·	·	<i>:</i>	Contract Contract	San		
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								•		a a		
		PAR #:	: Disposition: QA				NCR: Yes No DQA: [
									Date:			
NCR:		W	ORK ORDE	ER NON-CONFORM	ANCE	(NCR						
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Sec Action Description Chief Eng	ction B	Sign & Date	Verifica Section		Approval Chief Eng	Approval QC Inspector		
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Item	ID:
110111	11/

D212-664-101

Accept



Setup Start

Stop



Revision ID:

Item Name:

Crosstube Fwd

Start Date: 23/03/2010

Start Qty: 1.00

Required Date: 30/03/2010 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

A	nn	ro	va	le•	

QC:

Process Plan:

Date:

Tooling:

Run

Stop



Sequence ID/

Work Center ID

130

Quality Control

Operation **Description**

QC15- Crosstube Dimensional Check

Date:

Memo

Set Up/ **Run Hours**

SPC (Y/N):

Draw Number

Draw Rev.

Date:

Date:

Plan Code

Accept Qty

Reject Reject

Insp. Number Stamp

0.00

0.00

0.00

hig 1 7:30

Qty

140



Crosstubes Crosstubes

Crosstubes

Memo

1-Drill pilot holes in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549

2-Ream hole to finish size in tube as per Dwg D212-664-141using drill Jig DT8548 & DT8549. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes.

3-Scribe part # and batch # using vibrating stylus as per Dwg D212-664-141

4-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141

10-04-12

W/O:			ORK ORDER CHANG	IANGES								
DATE	STEP	PRO	OGEDURE CH	ANGE .		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
									-			
Part No	•	PAR #:	Fault Cat	egory:	_ NCF	R: Yes I	No DQ	\ :	Date:			
	R	esolution:	Dispositi	on:	_ QA:	N/C Clo	sed:		Date:			
NCR:			WORK ORE	DER NON-CONFORMA	ANCE	(NCR)					
DATE	STEP	Description of NC Corrective Action			Section B			ation	Approval	Approval		
	0.2.	Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section		Chief Eng	QC Inspector		
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Work Order ID 57133

March 23, 2010 1:06:18 PM



Page 3

Item ID:

D212-664-101

Accept

Setup Start

Stop



Revision ID:

Item Name: Crosstube Fwd

23/03/2010

Start Otv: 1.00

Operation

Description

Required Date: 30/03/2010

Reg'd Oty: 1.00



Cust Item ID: Customer:

Reference:

Start Date:

Ap	prova	ıs:

Process Plan: ____ Date:

Tooling:

Date:

Run



Date: _____

SPC (Y/N):

Set Un/

Run Hours

Date:

Stop

Start



Sequence ID/ Work Center ID

150

HandFXtube

Memo

Crosstubes Chemical Conversion

0.00

Hand Finishing Crosstubes

Chemical Conversion Coat within 24 hours of bending and drilling

Draw Number Draw Rev.

Plan Accept Code Otv

Reject Otv

Reject Insp. Number Stamp

MB 10-04-12

160

OC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

3 ...

170

Outsource2

Outsource process - NDT

Outsource process - NDT per OSI038 4.1

0.00

0.00

Memo

Liquid Penetrant Inspection as per QSI 038

Issue P/O: // GHY LPI as per ASTM 1417 Level 2

Attach copy of NDT results to work order

W/O:			WC	RK ORDER CHANC	GES			•	•
DATE	STEP	PR	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A :	_ Date: _	
	Re	solution:	Disposition	1:	_ QA: N/C C	losed:		Date: _	
NCR:			WORK ORDE	ER NON-CONFORM	ANCE (NC	₹)			
DATE	STEP	Description of NC			tion B	Verific	ation	Approval	Approval
DAIL	J.L.	Section A	Initial Chief Eng	Action Description Chief Eng	Sign a	Section Section		Chief Eng	QC Inspector
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Work Order ID 57133

March 23, 2010 1:06:18 PM

Required Date: 30/03/2010



Page 4

Item ID:

D212-664-101

Accept



Setup Start



Revision ID:

Item Name:

Crosstube Fwd

Start Date:

23/03/2010

Start Qty: 1.00

Req'd Qty: 1.00



Cust Item ID:

Customer:

Draw

Number

Reference:

Approvals:

Process Plan:

Date:

Tooling: SPC (Y/N):

Set Up/

Run Hours

Date:

Date:

Draw

Run

Start

Stop



Stop

Sequence ID/ **Work Center ID**

180

Packaging Packaging

Description

Receive & Inspect for Damage & Mat'l Certs

Packaging

Operation

Memo

0.00

0.00

Ensure copy of NDT results attached to work order.

Date:_____

Rev.

Plan Code

Accept Qty

Reject Qty

Reject Number Stamp

Insp.

190

Quality Control

QC5- Inspect part completeness to step on W/O

0.00

Memo

0.00

Inspect for damage & ensure results are as per Dwg D212-664-141

10 04 14 (1)

W/O:										
DATE	STEP	PRO	DCEDURE CHA	INGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
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						:				
·							<u>-</u>			
Part No	:	PAR #:	Fault Cate	gory:	NCR:	Yes N	lo DQ	A:	Date:	
		esolution:								
NCR:		•	WORK ORD	ER NON-CONFORM	ANCE ((NCR)	3.4		110.00	
DATE	STEP	Description of NC			ction B	<u> </u>	Verific	ation	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Secti	on C	Chief Eng	QC Inspector
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Work Order ID 57133

March 23, 2010 1:06:18 PM



Page 5

Item ID:

D212-664-101

Accept

Setup Start

Stop



Revision ID:

Item Name:

Crosstube Fwd

Start Date:

23/03/2010 Start Qty: 1.00

Required Date: 30/03/2010 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

A m	pro	zo les
AL	pro	vais:

Process Plan:

Operation

SprayPaint

Description

Date:_____

Date:

Tooling:

SPC (Y/N):

Set Up/

Run Hours

Date:

Draw

Number

Date:

Draw

Rev.

Plan

Code

Start Run



Stop

Sequence ID/ **Work Center ID**

200



SprayPaint **Spray Painting** Memo

Spray Painting per QSI005 4.2

0.00

0.00

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per OSI 005 4.2

PRIME:

Start Time: 9:00 Fininsh Time: 10130

PAINT:

Start Time: 2:30 Finish Time: 3-45

210

QC14- Inspect Spray Paint

0.00



Quality Control

Memo

0.00

Then, Wrap in plastic bag to protect from scratches

10-04-15

Accept

Qty

Reject

Qty



Reject

Number



Insp.

Stamp

W/O:			WORK ORDER CHANGES							
DATE	STEP	P	ROCEDURE CH	IANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
							73.41			
·										
Part No	:	PAR #:	Fault Ca	tegory:		NCR: Yes	No DQ	A:	Date:	
		esolution:								
NCR:			WORK OR	DER NON-CO	NFORMAN	CE (NCF	₹)			
DATE	STEP	Description of NC	In it in I	Corrective Action Section Initial Action Description			Verific	eation	Approval	Approval
		Section A	Initial Chief Eng		escription of Eng	Sign 8 Date	Secti	on C	Chief Eng	QC Inspector
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Work Order ID 57133

March 23, 2010 1:06:18 PM



Page 6

Item ID:

D212-664-101

Accept

Setup Start

Stop



Revision ID:

Item Name: Crosstube Fwd

Required Date: 30/03/2010

Start Date:

23/03/2010

Start Oty: 1.00

Reg'd Oty: 1.00



Cust Item ID: Customer:

Draw

Number

Reference:

Approvals:

QC:

Process Plan: ____ Date:

Operation

Description

Tooling:

SPC (Y/N):

Set Up/

0.00

0.00

Run Hours

Date:

Draw

Rev.

Date:

Plan

Code

Start

Run

Accept

Otv

Stop

Reject

Otv

Insp.

Stamp

Reject

Number

Sequence ID/ Work Center ID

220

Crosstubes Crosstubes

Crosstubes

Date: _____

1- Lightly scuff the bonded area using a 320 grit sand paper and clean the area

with 41058 wash 'n' wipe

2-Install supports with magnobond as per QSI 015 Adhere for for 12 Hrs A/R 6398 Magnobond Batch: //400/ Up 0// 20/

QC5- Inspect part completeness to step on W/O

Memo

Memo

0.00

240

230

Quality Control

Packaging

Pick Kit

0.00

Memo

0.00

/1/19 W

Packaging

W/O:	WORK ORDER CHANGE							IGES								
DATE	STEP	PRO	OCEDURE CH	IANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector						
			, <u></u> ,, <u></u>													
Part No	:	PAR #:	Fault Ca	tegory:	NCI	R: Yes	No DQA	\:	Date:							
				Disposition: QA: N/												
NCR:			WORK OR	DER NON-CONFORMA	ANCE	(NCR)									
DATE	STEP	Description of NC			Section B		Verific	ation	Approval	Approval						
		Section A	Initial Chief Eng	Action Description Chief Eng		Sign & Date	Section	on C	Chief Eng	QC Inspector						
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Work Order ID 57133

March 23, 2010 1:06:18 PM



Page 7

Item ID:

D212-664-101

Accept

Setup Start

Stop



Revision ID:

Item Name: Crosstube Fwd

Start Date: 23/03/2010

Start Oty: 1.00

Required Date: 30/03/2010

Reg'd Oty: 1.00



Date: _____

Cust Item ID:

Customer:

Reference:

Approvals:

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start

Stop

Sequence ID/ Work Center ID

250

Ouality Control

Operation Description

OC4- 100% Inspect kits for completeness

Memo

Set Up/ **Run Hours**

Draw Number

Draw Plan Rev.

Code Oty

Reject Accept Otv

Reject Number Stamp

Insp.

260

Packaging

Packaging

Memo

0.00

0.00

Packaging Identify and pack for shipping as per PPP D212-664-101

NOVE

270

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

						*							
W/O:			WORK ORDER CHANGES										
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
		•											
Part No	:	PAR #:	Fault Cate	gory:	_ NCR: Yes	No DQA:	l	_ Date: _					
·	Res	olution:						Date:					
NCR:			WORK ORDE	ER NON-CONFORMA	NCE (NCR)							
DATE	STEP	Description of NC		Corrective Action Section B		Verification		Approval	Approval				
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section		Chief Eng	QC Inspector				
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Picklist Print		· ·					Page
March 23, 2010 1:06:22 PM							1 age
Work Order ID: 57133							
4 104 to 0 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -					*		
Parent Item Name: Crosstube Fwd	OI 110010 BILLO BILLI BIB1 17	JEB: :01: 89;B :0! BQ		St	tart Date: 23/03/20	010 Required	Date: 30/03/2010
Comments: IPP Rev:E□04.02.16□Reformat□KJ/DS IPP Rev:F 06-03-29 Remove Coments on Pick List IPP Rev:G 07-04-30 As per Rev C	JLM JLM			S	Start Qty: 1.00	_	d Qty: 1.00
Component Item ID/ Replacement Mfg/ Bin Primary D212-664-101TRN Manufactured No Crosstube Turning Detail	Last	Route 110	Unit of Each	Qty on 2.0000	Remaining O	Oty Da	e Status MB LO
Wareh	<u>ouse</u>	Loc	<u>Qty</u>	Loc Code			
<u>Lo</u>	<u>cation</u>						
Main V	Varehouse						
LC	;		2				
	56560 .	1	1				
D3595-063-450 Manufactured No	56563	230	l Each	95.2566	4.2105		
		250	Lacii	93.2300	4.2103		

RUBBER CUSHION

Warehouse Location	Loc Qty	Loc Code		M 100
Main Warehouse				
LG	95.25657369		<u></u>	
38959	2			
43210	2.59			
46465	0.3789			
52447	2.72767369			
53775	87.56			

Page 1

Status

W/O:			V	ORK ORDER CHANG	ES				* *
DATE	STEP	PRO	OCEDURE CH	IANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
									·
Part No	•	PAR #:	Fault Ca	tegory:	_ NCR: Yes	No DQ	A:	Date:	L
	Re	solution:	Disposit	ion:	_ QA: N/C (Closed:		Date: _	-
NCR:			WORK OR	DER NON-CONFORMA	ANCE (NC	R)		W	
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	ion Sign & Date		on C	Chief Eng	QC Inspector
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March 23, 2010 1:06:22 PM

Work Order ID: 57133

Parent Item:

D212-664-101

Parent Item Name:

Crosstube Fwd

Comments:

IPP Rev:E□04.02.16□Reformat□KJ/DS

IPP Rev:F 06-03-29

Remove Coments on Pick List JLM

IPP Rev:G 07-04-30

As per Rev C



Start Date: 23/03/2010

Required Date: 30/03/2010

Start Oty: 1.00

Required Oty: 1.00

Component Item ID/

MS21920-25

Replacement Mfg/

Purchased

Bin No

Primary Last

JLM

Route 220

Unit of Each

Otv on

Remaining 160.0000 4.0000

Otv

Date

M 1004 15

Status

Clamp(per MIL-DTL-8783C)

Warehouse Location	Loc Oty	Loc Code
Main Warehouse		
ST451	160	
108111	3	
108975	17	
109181	42	
109644	10	
113281	21	
113282	50	
113744	17	
		

D2893-1

2.75 Support

Manufactured No

220

Each

64.0000

2.0000

Warehouse Location	Loc Qty	Loc Code
Main Warehouse		
LG	64	
25657	6	
51775	9	
<u>53125</u> ,	19	
53340	10	
53774	20	

M 10 04 15

W/O:			W	ORK ORDER CHANG	ES				7-	
DATE	STEP	PRO	CEDURE CHA	NGE	,	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
										· ·
Part No	:	PAR #:	Fault Cate	gory:	_ NCF	R: Yes	No DQ	A:	Date:	
		esolution:								
NCR:		V	VORK ORD	ER NON-CONFORM	ANCE	(NCR	3)			
DATE	STEP	Description of NC	Initial	Corrective Action Sect Action Description	tion B	Sign &		cation	Approval	Approval
		Section A	Chief Eng	Chief Eng		Date	Secti	on C	Chief Eng	QC Inspector
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Picklist Print

March 23, 2010 1:06:22 PM

Work Order ID: 57133 Parent Item:

D212-664-101

Parent Item Name:

Crosstube Fwd

Comments:

IPP Rev:E□04.02.16□Reformat□KJ/DS

IPP Rev:F 06-03-29

Remove Coments on Pick List JLM

IPP Rev:G 07-04-30

As per Rev C



Last

Start Date: 23/03/2010

Required Date: 30/03/2010

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ (D3428-1)

Placard

BOLT

Bolt

Replacement Mfg/

Bin No Manufactured

No

Primary

Route 240

Unit of Each

Qty on 16.0000 Remaining 1.0000

Qty

Date

Status

Page 3

Warehouse Loc Oty Loc Code Location Main Warehouse

ST056

JLM

55565

16 16

Each

48.0000

55565

Warehouse Loc Otv Loc Code Location

240

Main Warehouse

ST343

240

48 18 30

Purchased

Purchased

No

113422

112805

Each

73.0000 4:0000

Warehouse	Loc Oty	Loc Code	
Location			
Main Warehouse			
ST343	73		
109632	1		
110382	2		
112314	20		M/123M
113121	50		

	•									
W/O:		71.	W	ORK ORDER CHANG	GES	_{1/2} s.				٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠, ٠
DATE	STEP	PR				By Date Qty			Approval QC Inspector	
Part No	:	PAR #:	Fault Cate	gory:	 NCR: `	Yes N	lo DQ /	\ :	_ Date: _	
	Res	olution:	Dispositio	n:	QA: N/	C Clo	sed:		Date: _	
NCR:			WORK ORD	ER NON-CONFORM	IANCE (N	(CR)		.,		
DATE	STEP	Description of NC	Initial		ction B	ign &	Verific		Approval	Approval
		Section A	Chief Eng	Action Description Chief Eng		Date	Secti	on C	Chief Eng	QC Inspector
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Picklist Print

March 23, 2010 1:06:22 PM

Page 4

Work Order ID: 57133

Parent Item

D212-664-101

Parent Item Name:

Crosstube Fwd

Comments:

IPP Rev:E□04.02.16□Reformat□KJ/DS

IPP Rev:F 06-03-29 IPP Rev:G 07-04-30

Remove Coments on Pick List JLM As per Rev C

JLM



Last

Start Date: 23/03/2010

Required Date: 30/03/2010

Start Oty: 1.00

Required Oty: 1.00

Component Item ID/

MS21042L6

Replacement Mfg/

Purchased

Primary Bin No

No

Route 240

Unit of

Oty on

Remaining 332,0000 6,0000

Qty

Date

Status.

Purchased Each

AN960JD616

Washer

Warehouse Loc Oty Loc Code Location Main Warehouse ST300 332 105077 22

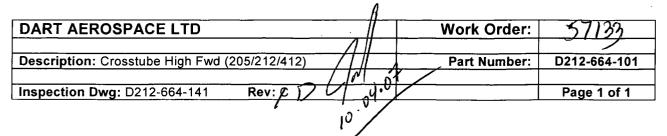
110002 5 111578 305

240 Each

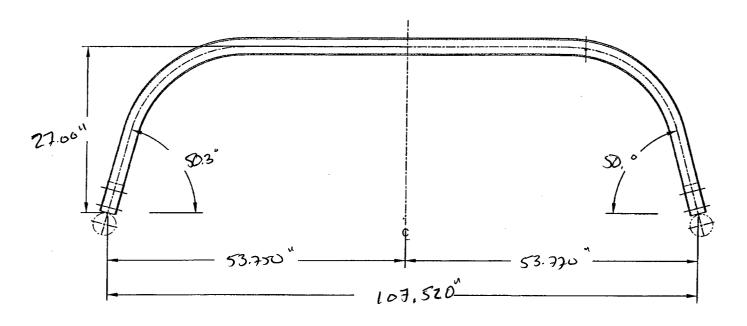
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Warehouse Loc Qty Loc Code Location Main Warehouse ST347 233 112314 3 112828 113149 229

W/O:			W	ORK ORDER CHANG	ES	**	•	,	
DATE STEP		PRO	OCEDURE CHA	ANGE	Ву	Date Q	ty Approval Chief Eng / Prod Mgr	Approval QC Inspector	
Part No	•	PAR #:	Fault Cate	egory:	_ NCR: Yes	No DQA:	Date: _		
		esolution:							
NCR:			WORK ORD	ER NON-CONFORMA	ANCE (NCR)			
DATE	STEP	Description of NC	Description of NC Corrective Action			Verification	n Approval	al Approval	
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Required Dimension	Min	Max
Height	26.79	27.05
1/2 Span	53.59	53.85
Angle	49	52
Total Span	107.18	107.7



	Comments	

QC15 Inspection	10.,	
Date	10/11/2	

Rev	Date	Change	Revised by	Approved
Α	07.02.06	New Issue	KJ/JM	1
В	07.05.31	Dimensions updated per Dwg Rev C	KJ/JM ox	ha
	•		• ()	

W/O:			WO	RK ORDER CHANGE	S	· · · · · · · · · · · · · · · · · · ·			
DATE	STEP	PR	OCEDURE CHAN		Ву	Approval			
Part No:		PAR #:	Fault Categ	ory:	NCR: Yes	No DQ	A:	Date:	
Part No:Resolut		esolution:	Disposition	•	QA: N/C CI	osed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORMAI	NCE (NCF	R)	***		
DATE	STEP	Description of NC		Corrective Action Section		Verific	cation	Approval	Approval
		Section A	Initial Chief Eng	Action Description Chief Eng	Sign 8 Date		ion C	Chief Eng	QC Inspector
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•									
				-					
							730012		



Item	Qty -141	Qty -141B	Part Number	Description
1	X		D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
2		Х	D212-664-141B	CROSSTUBE ASSEMBLY (214 HIGH FWD)
3	1	1	D6005-128	CROSSTUBE
4	2	2	D2893-1	SUPPORT
5	4	4	D3595-063-450	RUBBER CUSHION
6	4	4	MS21920-25	CLAMP (OR MS21920-26)
7	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

1) MATERIAL: MANUFACTURED FROM D6005-128 FINISHED LENGTH = 126.514±0.020

CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART OSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

UNITS: INCHES UNLESS OTHERWISE NOTED.

BREAK SHARP EDGES: 0.005 TO 0.010 MAX.

IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS

WEIGHT: D212-664-141 = 33.6 lbs (PER IIN-D212-664) D212-664-141B = 33.6 lbs (PER IIN-D212-664)

PART IS SYMMETRIC ABOUT CENTERLINE

RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALY, TRANSITION SHOULD BE SMOOTH.

10) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.

11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.

12) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2893-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.

13) INSTALL MS21920-25 CLAMPS (OR -26) WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2893-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE

14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

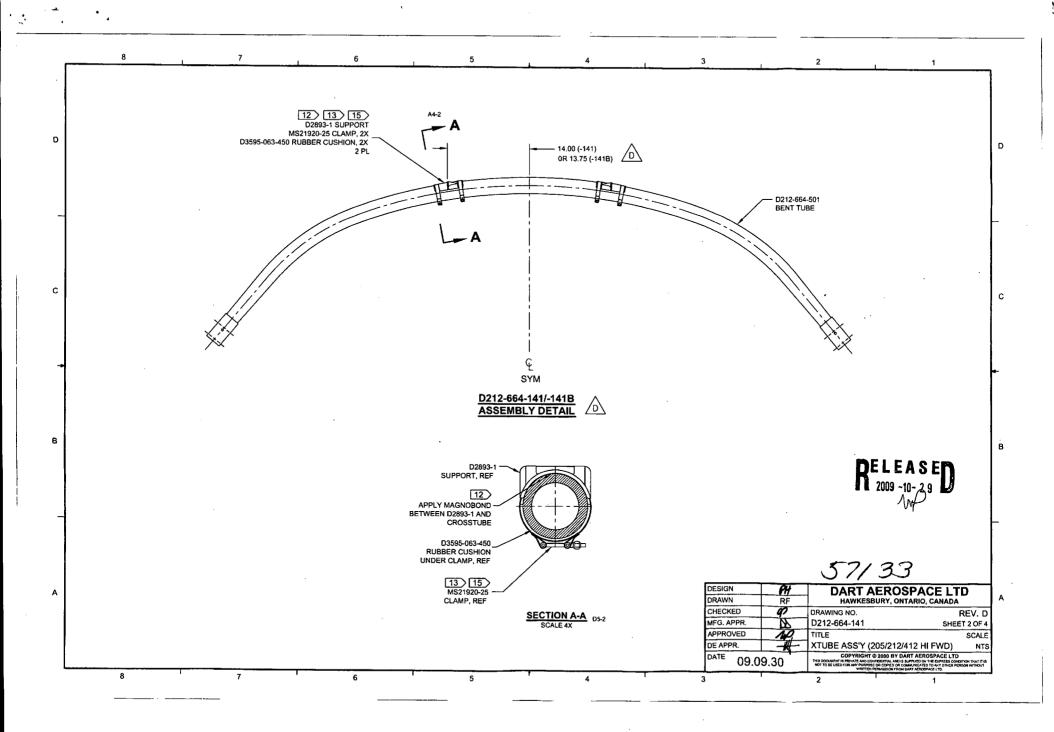
15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP COPY RETURN TO **ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER

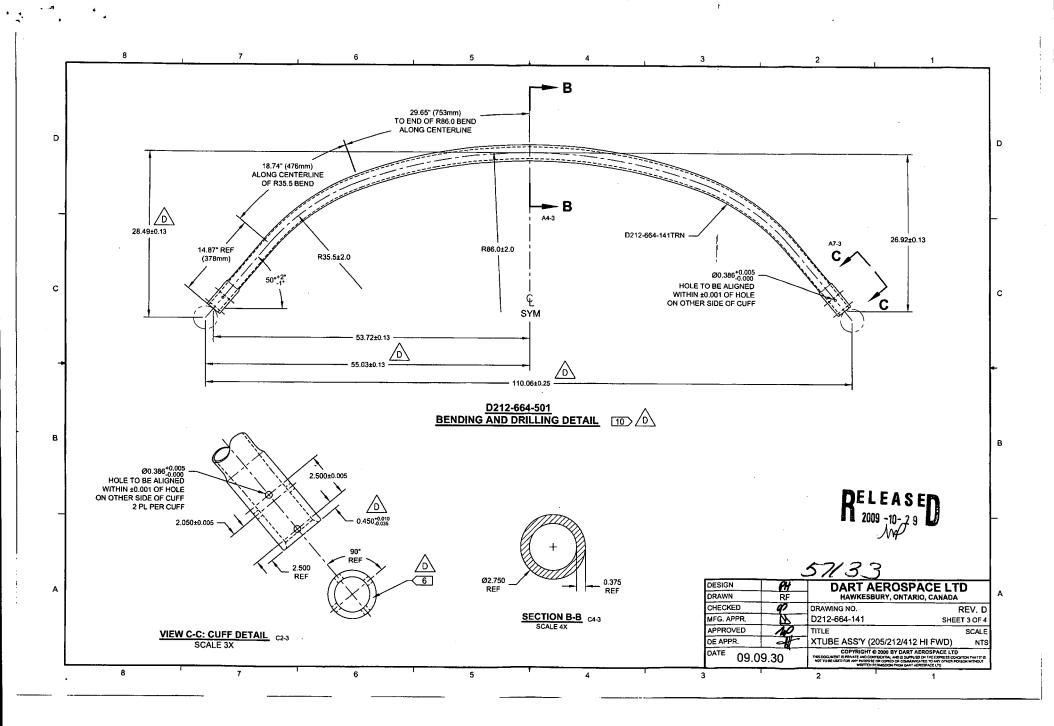
REFORMAT/REVISE GENERAL NOTES/PART LIST: 09.09.30 REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS; ADD -141B (ZN B4-2, D4-2); REMOVED REF & ADD TOLERANCES (ZN B4-3, C6-3, C8-3 & B6-3); RELOCATED FLAG #6 PER PAR 08-046 (ZN A5-3); MOVED TURNING DETAIL & UPDATED TOLERANCE TO REMOVE -851 ABRASION STRIP; ADD MAGNOBOND С 07 03 08 6398, CUSHION, REVERSE CLAMPS ADD HOLES FOR COMPATABILITY WITH BHT/AA В 05.02.04 SKIDTUBES Α NEW ISSUE PH 00.12,12 REV. DESCRIPTION BY DATE DESIGN DART AEROSPACE LTD DRAWN HAWKESBURY, ONTARIO, CANADA RF CHECKED DRAWING NO. REV. D MFG. APPR. D212-664-141 SHEET 1 OF 4 APPROVED TITLE SCALE DE APPR. XTUBE ASS'Y (205/212/412 HI FWD) NTS COPYRIGHT © 2000 BY DART AEROSPACE LTD 09.09.30

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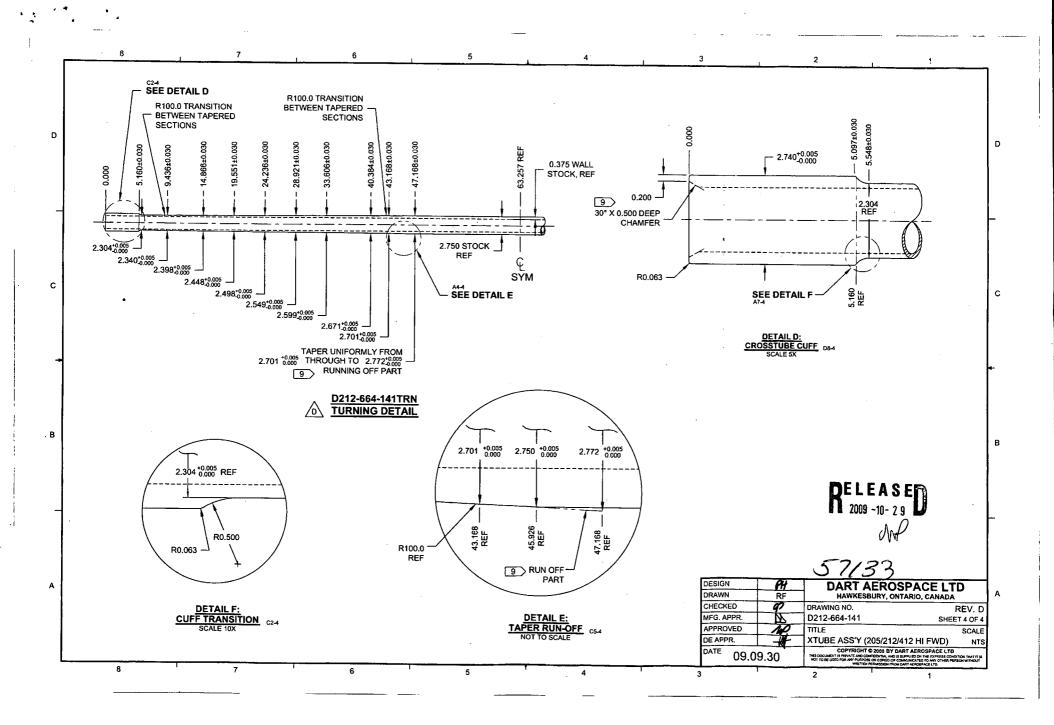
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REFERENCE ONLY

5.0 PARTS LIST

HIGH GEAR CROSSTUBES

ltem	<u></u>	≥-201	-203	Part Number	Description
	х			D212-664-101	CROSSTUBE INSTALLATION, 204/205/210/212/214/412, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH FWD
		х		D212-664-201	CROSSTUBE INSTALLATION, 204/205/210/212/214, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K H!GH AFT
			x .	D412-664-203	CROSSTUBE INSTALLATION, 412 HIGH AFT
1	1			D212-664-141	CROSSTUBE ASSEMBLY, 204/205/210/212/214/412, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH FWD
2		1	, , , , , , , , , , , , , , , , , , ,	D212-664-241	CROSSTUBE ASSEMBLY, 204/205/210/212/214, UH-1H, UH-1A/B/E/F/L/P, TH-1F/L, HH-1K HIGH AFT
3	·		1	D412-664-243	CROSSTUBE ASSEMBLY, 412 HIGH AFT
			1.7		
10	2			* D2893-1	SUPPORT
11	4			* D3595-063-450	RUBBER CUSHION
12	4			.≛MS21920-25	CLAMP (OR MS21042-26)
13	1 4			"AN6-35A ५	BOLT
14	ነ 4			AN6-36A	BOLT
15	16			-MS21042L6 , J	NUT (OR MS21042-6)
16	l 18		- 1 mm	AN960JD616 /	WASHER
20		2		* D2940-1	SUPPORT
21	<u> </u>	4	 	* D3595-063-530	RUBBER CUSHION
22	ļ	4	 	* MS21920-28	CLAMP (OR MS21042-30)
23	\	4	 	AN6-40A	BOLT
24	<u> </u>	2		AN6-41A	BOLT
25		6	 	MS21042L6	NUT (OR MS21042-6)
26 26	<u> </u>	18		AN960JD616	WASHER
30		-	1 .	* D2896-1	SUPPORT
31	ļ	 	2	* D2856-600-1009	ABRASION STRIP
32	<u> </u>		2	* D3595-063-570	RUBBER CUSHION
33			4	* MS21920-28	CLAMP
34	<u>;</u>		2	* MS21920-30	CLAMP (OR MS21042-32)
<u>34</u> 35	<u> </u>		4	AN6-40A	BOLT
36	<u> </u>		2	AN6-41A	BOLT
37	\ <u> </u>	 	6	M\$21042L6	NUT (OR MS21042-6)
38	 		18	AN960JD616	WASHER
	ļ		2	* D3189-1	CHAFING SHIELD
39		<u> </u>	<u> </u>	D3109-1	OTIVI INO OTHEED

*REFERENCE ONLY. PARTS ARE INCLUDED IN D212-664-141/-241 OR D412-664-243 ASSEMBLIES ABOVE NOTE: KITS INCLUDE EXTRA HARDWARE FOR COMPATIBILITY WITH BOTH DART AND BELL/AA SKIDTUBES.

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Revision: F

Date: 08.09.05

Dart Aerospace L	.td
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LIQUID PENETRANT TEST REPORT

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PROJECT PROJECT TEM(S) EXAMINED DIDE DESCRIPTION PROCEDURE NO. LT-COOL REVIDATE PART NO. MATERIA A. SILLY REVIDATE PART NO. SCORE WET FLUCKES CENT L. CALLY CALLY THOMASS TEST DETAILS METHOD	ATTENTION	LIND.	A / CHANTE	-	_ ACUREN JOB NO			-03	145
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